

SULPHADIMETHYLOXAZOLE ('NUPRIN') WITH STREPTOMYCIN IN THE TREATMENT OF NON-GONOCOCCAL URETHRITIS*

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Sulphadimethyloxazole ("Sulfamoxole", "Nuprin", or U 18396—Upjohn) is a long-acting sulphonamide. It has already been used in the treatment of non-gonococcal urethritis (Willcox, 1962) and the results obtained, using only two daily doses of the new preparation, have proved comparable with those obtained with other sulphonamides alone (Table I).

TABLE I
COMPARISON OF EFFECTS OF SULPHONAMIDES IN
NON-GONOCOCCAL URETHRITIS

Sulphonamide	No. Treated	No. Followed	No. of Failures	Per cent. Failures of Those Followed
Conventional Short-acting (20–28 g.) . .	55	53	21	39·6
Middle-acting Mixed (Dosulfin) (12 g.) . .	100	88	33	37·5
Long-acting (Sulfamoxole) (8 g.) . .	60	55	20	36·4

The long-acting "sulfamoxole" has the advantage that fewer doses are required.

Sulphonamides alone are not particularly successful in non-gonococcal urethritis (NGU). The best results have been obtained with the tetracyclines (with and without oleandomycin), and success rates of 81·5 to 85·4 per cent. may be obtained (Willcox, 1958).

A number of authors (*e.g.* Lyall, 1953; Jelinek, 1957; Prebble, 1957) have had significantly better results (*e.g.* success rates of 76 to 85 per cent.) when sulphonamides have been combined with a single injection of streptomycin. In a personal series of fifty cases using "Dosulfin"—a middle-acting mixed sulphonamide—plus streptomycin, 43 were followed and there were twelve failures—a success rate of 72·1 per cent. (Willcox, 1961). Such results, although

not as good as those obtained with the tetracyclines, are achieved at a much reduced cost in drugs, and the combination of streptomycin and sulphonamides is therefore widely used in the treatment of NGU, the tetracyclines being reserved for failures. This paper concerns the treatment of fifty patients with uncomplicated non-gonococcal urethritis with a single intramuscular injection of 1·0 g. streptomycin sulphate plus 8 g. Sulfadimethyloxazole given orally over 7 days.

Cases Treated

Nineteen of the patients were Negroes, seventeen from the West Indies and two from West Africa, twenty patients were from the United Kingdom, four from Eire, and one each from Canada, Egypt, Germany, India, Jordan, Poland, and the Seychelles. The average age was 30·3 years (range 19 to 50) for the whole series, and 31·3 years (range 20 to 48) for the Negroes. Eighteen were married and 32 were single.

Only seventeen patients (four of them Negroes) had had no previous venereal incident. The remainder had had between them no less than 33 previous attacks of gonorrhoea, 22 of NGU, one of syphilis, and four of venereophobia—a total of sixty previous incidents. The fifteen Negro patients had had forty of these previous incidents, an average of 2·6 each, and the others had an average of 0·6 each.

The discharge had been present before treatment for 1 to 3 days in 24 cases, 4 to 7 days in fifteen, 8 to 14 days in seven, 15 to 21 in three, and 6 weeks in one. 35 patients had noted some dysuria and fifteen had not. The disease had apparently been caught from a stranger in thirty cases, from a friend in eleven, from the wife in eight, and from homosexual exposure in one. The apparent incubation period was 1 to 3 days in eleven cases, 4 to 7 days in eleven, 8 to 14 days in seven, 15 to 21 days in six, 22 to 28 days in five, and over 28 days in three; in seven cases the incubation period was unknown.

The routine Wassermann and VDRL (or Kahn) reactions were both negative in 49 cases, and one West African patient had a negative Wassermann reaction and a positive

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VDRL reaction. The gonococcal complement-fixation test was negative in seventeen patients and positive in two (both West Indians).

Treatment

In all cases gonococci were excluded from the urethral smear and routine serum tests for syphilis were made before therapy was begun. No case in which trichomonads were found was included in the series. The patients were given a single intramuscular injection of 1 g. streptomycin sulphate plus sixteen 0.5-g. tablets of Nuprin which were to be taken orally, one twice daily for one week except for the first two doses when two tablets were to be taken.

The intention was to examine the patients for urethral discharge and to take a smear if a discharge was present, and to examine the urine for haze and for threads at 1, 2, 4, 8, and 12 weeks from the commencement of therapy. It was also proposed to make two examinations of the prostatic fluid during this time and to carry out final serological tests for syphilis after 3 months.

Follow-up and Results

No side-effects from treatment were noted. The follow-up and results obtained are shown in Table II.

TABLE II
FOLLOW-UP AND RESULTS IN FIFTY MALE PATIENTS
WITH NGU TREATED WITH STREPTOMYCIN AND
SULFAMOXOLE

Follow-up	No. Followed	No. Satis- factory	Gono- coccal Infection	No. Retreated for NGU
0	50	—	—	—
1-7 days ..	34	7	—	3
8-14 days ..	24	3	—	3
15-21 days ..	18	3	—	1
22-28 days ..	14	3	—	2
1-2 mths ..	9	2	1	2
2-3 mths ..	4	1	1	—
Over 3 mths ..	2	1	—	1
Totals	34	20	2	12

Of fifty patients treated, 34 were followed and the status at the last visit was satisfactory in twenty of them. Two patients subsequently developed gonococcal urethritis. Re-treatment for NGU was required during the 12 weeks of observation in eleven cases (32.4 per cent. of those followed). The success rate in this series was thus 67.6 per cent. No satisfactory criteria exist to distinguish relapse from re-infection and no attempt to do so was made in this series. Some failures may, in fact, have been re-infections.

One of the failures developed signs of Reiter's syndrome after 7 days.

The results are given by race in Table III, which shows that the failure rates were similar in the two groups.

TABLE III
RESULTS CLASSIFIED BY RACE

Race	No. Treated	No. Fol- lowed	No. Satis- factory	Gono- coccal In- fection	Re- treated for NGU within 12 weeks	Per cent. Re- treated for NGU
Negro ..	19	12	6	2	4	33.3
Other ..	31	22	14	—	7	31.8
Total ..	50	34	20	2	11	32.4

Comparison of Sulfamoxole + Streptomycin with Dosulfon + Streptomycin

The current results are compared with those obtained with "Dosulfon" (mixed sulphonamide) plus streptomycin in an earlier series in Table IV, which shows that the effect of the long-acting Sulfamoxole plus streptomycin were comparable with, but no better than, that of Dosulfon plus streptomycin.

TABLE IV
RESULTS OBTAINED WITH "SULFAMOXOLE" OR
"DOSULFIN" PLUS STREPTOMYCIN

Streptomycin plus	No. Treated	No. Followed	Recurrence of NGU within 12 weeks	Per cent. Recurrence
Dosulfon 12 g. (middle-acting mixed) ..	50	43	12	27.9
Sulfamoxole 8 g. (long-acting) ..	50	34	11	31.8

Summary

(1) Fifty male patients with uncomplicated non-gonococcal urethritis were treated with 1 g. streptomycin sulphate given intramuscularly in a single injection and 8 g. Sulfamoxole given orally twice daily for 7 days. Of 34 patients followed, re-treatment for NGU was required within 12 weeks in eleven (31.8 per cent.).

(2) These results are similar to those obtained in a similar series of patients treated with streptomycin and a mixed sulphonamide (Dosulfon).

(3) No side-effects from treatment were noted in this series.

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L'urétrite non-gonococcique traitée par le Sulfamoxole (Nuprin) avec la streptomycine

RÉSUMÉ

(1) 50 hommes atteints d'urétrite non-gonococcique sans complication ont reçu une dose de 1 g. de sulfate de streptomycine par voie intramusculaire et 8 g. de sulfamoxole par voie buccale deux fois par jour pendant 7 jours. Sur 34 cas qui ont été suivis, 11 (31,8%) durent être traités de nouveau dans les 3 mois.

(2) Ces résultats ressemblent à ceux obtenus dans une série semblable traitée avec la streptomycine et le Dosulfine (un genre de sulfonamide mixte).

(3) Dans cette série, le traitement n'entraîna pas de complications.

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